

ENCROACHMENT PERMIT

(to be completed by applicant)

MERIT OIL COMPANY, the Owner Lessee of the property located at 1751 3rd Street in the City of Riverside, Assessors Parcel No. 210-172-027 hereby requests permission to CONSTRUCT AND MAINTAIN A 1/2" 3000 PSI CNG LINE & RELATED ELECTRICAL FACILITIES AND MAINTAIN AN EXISTING 1/2" 3000 PSI CNG LINE

in the public right of way of DURHAM ST. or the \_\_\_\_\_ easement at the \_\_\_\_\_ rear/\_\_\_\_\_ side/\_\_\_\_\_ front of said property. The attached drawing shows the requested encroachment. Upon issuance of this permit, I agree to comply with the attached terms and conditions.

Date 7/15/96

X [Signature]  
X Merit Oil Company

B  
26-7

ENCROACHMENT PERMIT APPROVAL

(to be completed by City)

This permit shall become effective upon the approval of the Departments listed below. Issuance of this permit shall not be construed as a waiver of any other applicable permit or requirement, but is only revocable permission to use the land for the purpose described.

X Public Utilities Water [Signature] 7/15/96  
X Public Utilities Electric [Signature] 7/15/96  
X Planning Craig Allen 7-14-96  
X Parks and Recreation [Signature] 7/16/96  
X (other) STREETS [Signature] 7-15-96

\_\_\_\_ (other) \_\_\_\_\_

Upon obtaining the above signatures, return this permit to the Public Works Department for final approval.

Date 7/19/96

[Signature]  
Public Works Director

Encroachment Permit No. 1356

### TERMS AND CONDITIONS

The following indicated terms and conditions apply to encroachment permit no. 1355.

1. Permittee acknowledges that the area of encroachment is owned or controlled by the City of Riverside.
2. Permittee acknowledges that the described property could be needed for a proposed or planned public improvement and the City may revoke this permit. Upon written notice of revocation, the permittee shall, within the time prescribed by the City, remove all improvements placed, constructed or maintained. If the permittee fails to abide by the removal order of the City, the City shall have the right to remove and destroy the improvements without reimbursement to the permittee. The cost of such removal shall be paid by the permittee to the City and shall constitute a debt owed to the City.
3. Permittee waives the right of claim, loss, damage or action against the City resulting from revocation, termination, removal of improvements or any action of the City, its officers, agents or employees taken in accordance with the terms herein.
4. If the City Council of the City of Riverside finds that the permittee is in default of the terms of this permit, that shall be cause for revocation.
5. Permittee herewith agrees to hold the City of Riverside harmless from and against all claims demands, costs, losses, damages, injuries, actions for damages and/or injuries, and liability in connection with the construction, encroachment, and/or maintenance to be done by permittee within the described property.
6. Prior to any construction taking place on City controlled property, permittee shall obtain a Construction Permit or Street Opening Permit from the City Public Works Department.
7. The permittee agrees to insure that construction of their improvements will not interfere in any way with existing City or utility facilities. The existing facilities will require future maintenance, reconstruction and revisions and facilities may be added, any of which may result in removal or alteration of the permittee's improvements without

reimbursement to the permittee. Prior to construction, Permittee shall contact Underground Service Alert to field locate existing utility lines. Any conflicts discovered will void the permit until acceptable revisions are made.

8. Other SEE ATTACHED LETTER DATED 7-18-96  
CONCERNING PROJECT SAFETY AND DESIGN

# The Gas Company

July 18, 1996

Bill Kraisosky  
Public Works Department  
City of Riverside  
3900 Main Street  
Riverside, CA 92522  
Fax No. (909) 782-5622



**Re: Background Information on Project Safety and Design  
Merit Oil Company CNG Dispenser  
1751 East 3rd Street, Riverside**

**Southern California  
Gas Company**

555 W. Fifth Street  
Los Angeles, CA

Mailing Address:  
Box 3249  
Los Angeles, CA  
90051-1249

I appreciate the time you spent yesterday with me to review by phone the safety and design aspects of the proposed compressed natural gas (CNG) dispenser to be installed at the Merit Oil Company (Merit) site located at 1751 East 3rd Street. As we discussed, the supply gas for this dispenser will come from the SoCalGas CNG Refueling Station located at the Riverside Transit Agency (RTA) site located at 3205 Durahart Street. The CNG Station at RTA has a natural gas compressor that boosts the pressure from 150 psig to 3600 psig and is currently being used to fuel the RTA buses with CNG.

Per your request, I am providing the following information related to the design, construction, operation and safety of the Merit CNG dispenser. We were asked to address the scenario of a backhoe digging in Durahart Street and striking the 3000 psig high pressure gas line.

## **Proposed Equipment**

The CNG dispenser at the Merit site will be installed with a card lock system for access. Only authorized personnel who have received special training in CNG dispensing operations will be allowed to fuel vehicles. When the user activates the card lock system, an isolation valve is opened at the RTA refueling station site, thereby allowing gas to flow from the RTA site, along Durahart Street (approximately 100 feet) and to the dispenser at the Merit site. When the vehicle tank pressure reaches 3000 psig, fueling is complete and the isolation valve at the RTA site closes. The two 1/2 inch gas supply lines between RTA and Merit will be isolated from the high pressure gas source at all times when vehicles are not being fueled. This line will remain at a pressure of 3000 psig during periods of nonfueling, however, the volume of gas trapped in the 1/2 inch lines is relatively small and will quickly dissipate should they be accidentally ruptured by a backhoe.

We have incorporated additional design features for safety during periods when vehicles are fueling and when vehicles are not fueling. These features include:

1. If a vehicle is fueling at the Merit dispenser and the gas supply line along Durahart Street were to be accidentally ruptured. An excess flow condition would be registered by the flowmeter, and the PLC (programmable controller logic) panel located at the RTA CNG Station facilities would shut the isolation valve at the RTA site and stop the flow of gas into the supply line along Durahart Street.

E-1355

2. As a back-up to the safety system described in (1.) above, an excess flow valve will be installed in the Merit dispenser gas supply line just downstream of the isolation valve located at the RTA site. This excess flow valve is a mechanical stand alone device that will be set to the proper flow parameters and will isolate the Merit dispenser supply line for either a vehicle fueling or non-fueling condition.

I would also like to take this opportunity to point out some of the design features that are shown on the plan check drawing number 30450-3002-D.NGV that we submitted for your review. This drawing shows a "typical trench section" for the gas supply line in Durahart Street. Note that the top of the high pressure gas line is at a depth of 52 inches which is well below the normal requirement of 18 inches. Also note that the top of the 3 inch 150 psig gas main is at a depth of 36 inches. The gas main is currently in service and supplies gas to the CNG compressor at the RTA site. It would be reasonable to assume that a backhoe would most likely strike the 150 psig gas main before it could strike the 3000 psig gas lines, thereby having an early warning. In this scenario, the warning tape at 6 inches depth and the 150 psig gas main would provide sufficient warning and prevent striking of the 3000 psig gas lines.

If you have any questions that were not addressed in this memo, please contact me at (213) 244-2690 or Stan Sinclair at (213) 244-2665 so that we can discuss any questions you may have. We appreciate the opportunity to address this matter.

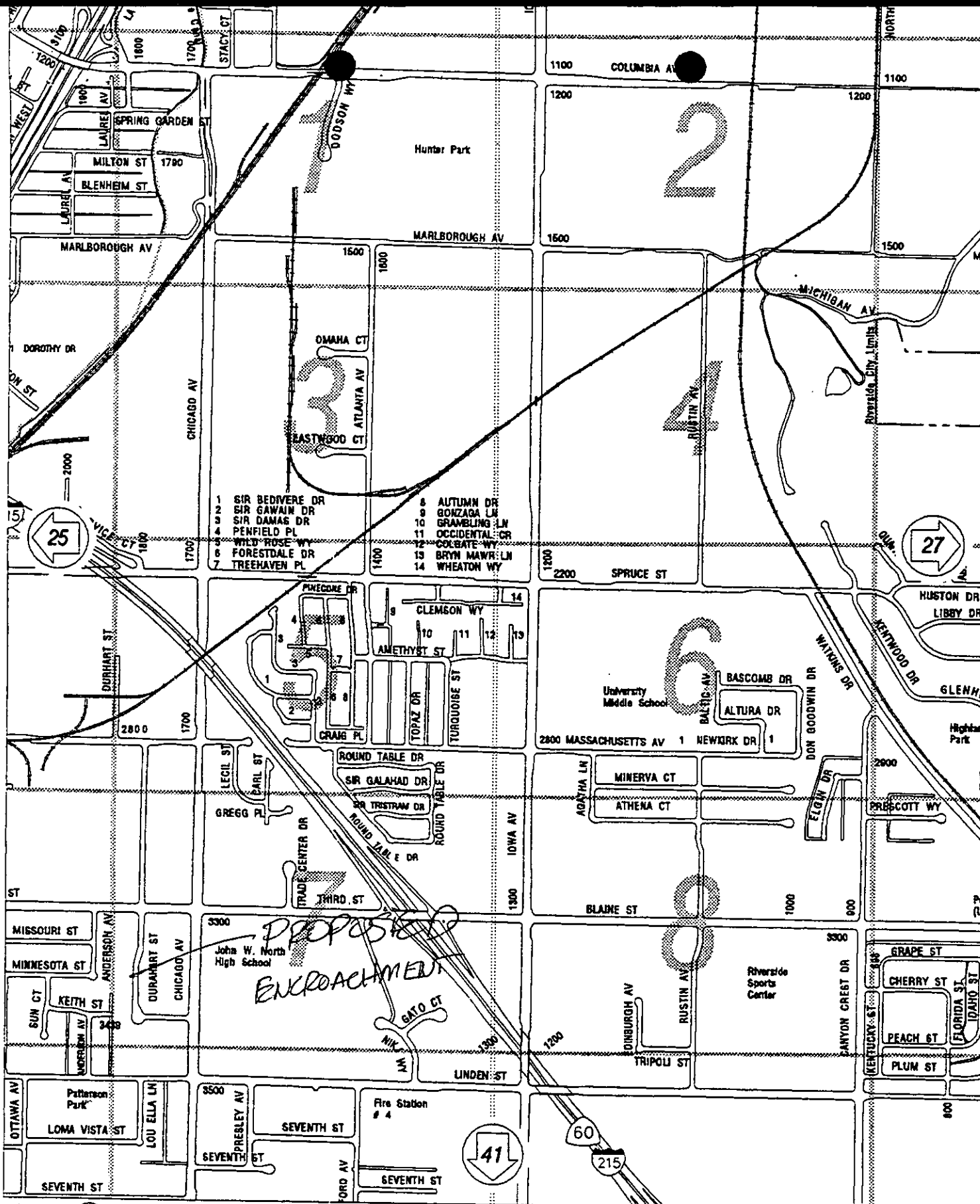
Sincerely;



Bob Skultety  
Design Manager  
NGV Fueling Stations

RAS

cc: H. Burnett  
S. Sinclair



CUT EXIST. &  
CONNECT NEW  
SLEEVE/CONDUITS  
12" WIDE TRENCH

37'-2"

5'-0" RAD  
BEND(MIN)

PROPOSED  
ENCROACHMENT

TWO(2)-2" ELECTRICAL  
CONDUITS

ONE(1)-3" PVC PIPE SLEEVE  
W/ TWO(2)-1/2" SS TUBING

CUT & CAP EXISTING  
SLEEVE/CONDUITS

EXIST. F

DETAIL 3  
THIS DWG.

E-1355

4 OF 4

P5773  
750φ123

12-1/0A  
2-4"  
277/480  
750A

U5-3205  
0/U

φ21N3

Durahart

3214

φ21N3

120/240 4/0  
120/240 1/0

45-16467J-58

120/2  
#4A C

120/240

35-17115J-5  
3"  
#2A

45-J34665-88

2"  
#2A

PS559

45-16466J-58

1751

U1-6694

1735

U2-6360

45-J36884-95

50-16460J-68

37 φ13  
10 φ12  
10 φ23

U4-6746

φ21N3

φ23

120

#2A CABLE

120/240

#2A CABLE

U5-

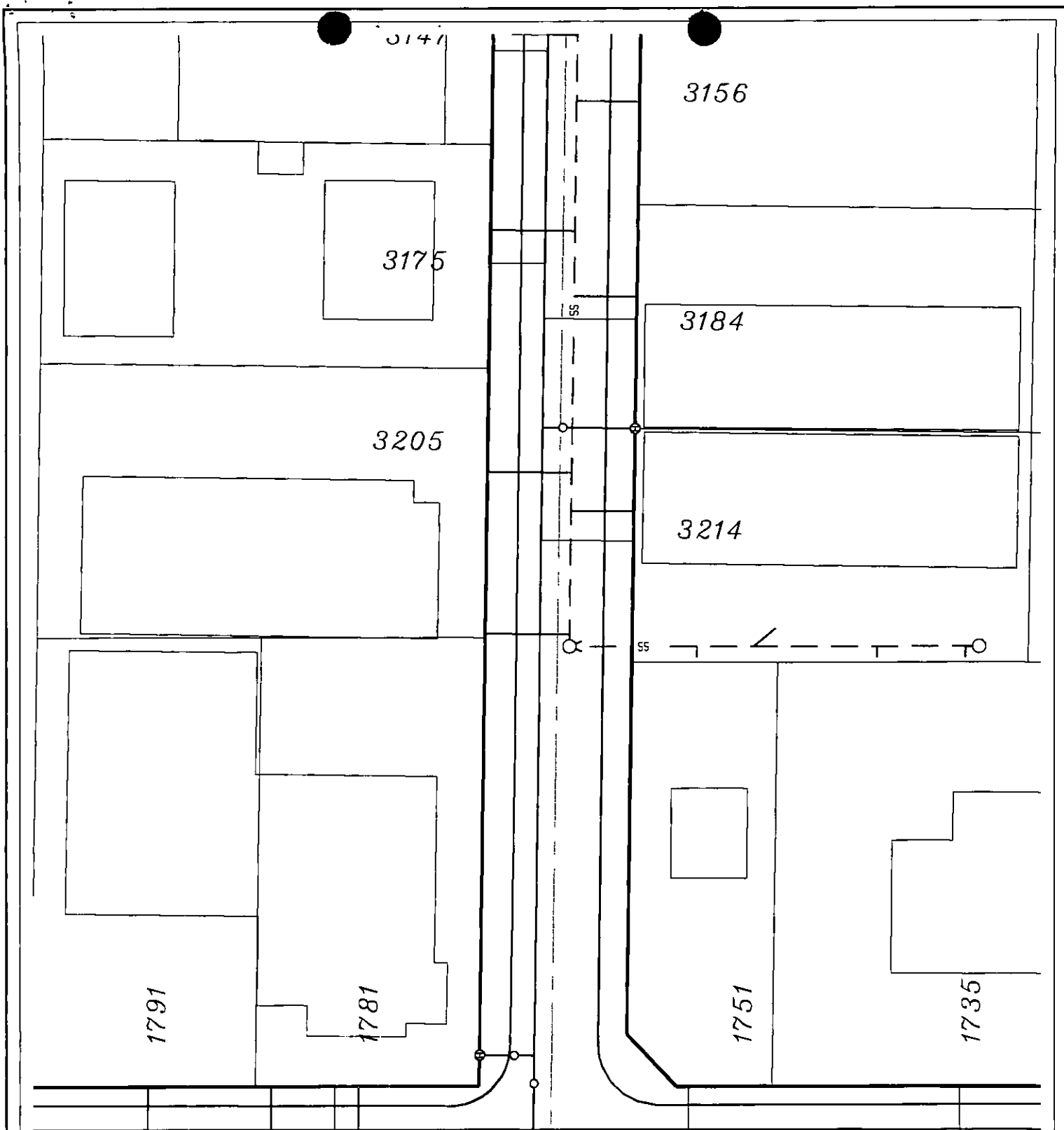
3rd

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E-1355





**Symbology**

	Structure Outline		Sewer Main
	Curb face		Sewer Force Main
	Edge of Pavement		Sewer Siphon
	Unpaved Roadway		Sewer Lateral
	Edge of Pavement / Berm		Sewer Cleanout
	Parcel Line		Sewer Manhole
	ROW Line		Sewer Lift Station
	Project Limits Boundary		Sewer Plant
	Street Centerline		Water Main
	Private Street Centerline		Hydrant
	Storm Drain		Valve (open)
	Storm Drain Inlet		Valve (closed)
	Storm Drain Manhole		Valve (temporarily closed)
	Storm Drain Lift Station		Blow Off (endline)

	Blow Off (inline)
	Blow Off/
	Pumper Outlet
	Pumper Outlet/
	Blow Off
	Water Service Line

Map Produced on:  
July 15, 1996



1 inch = 60 feet

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